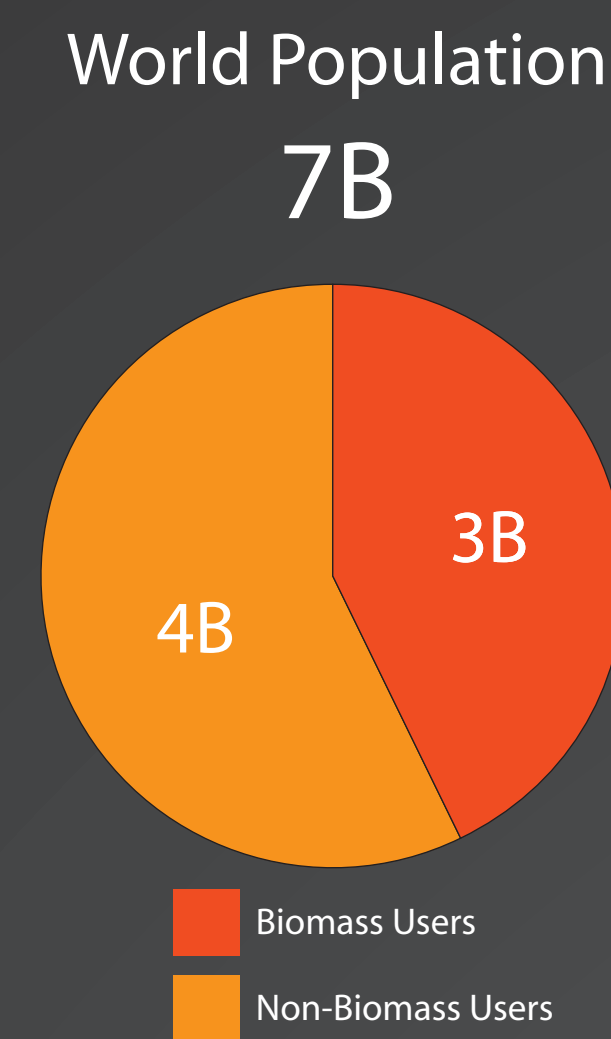


THE TROUBLE WITH COOKING

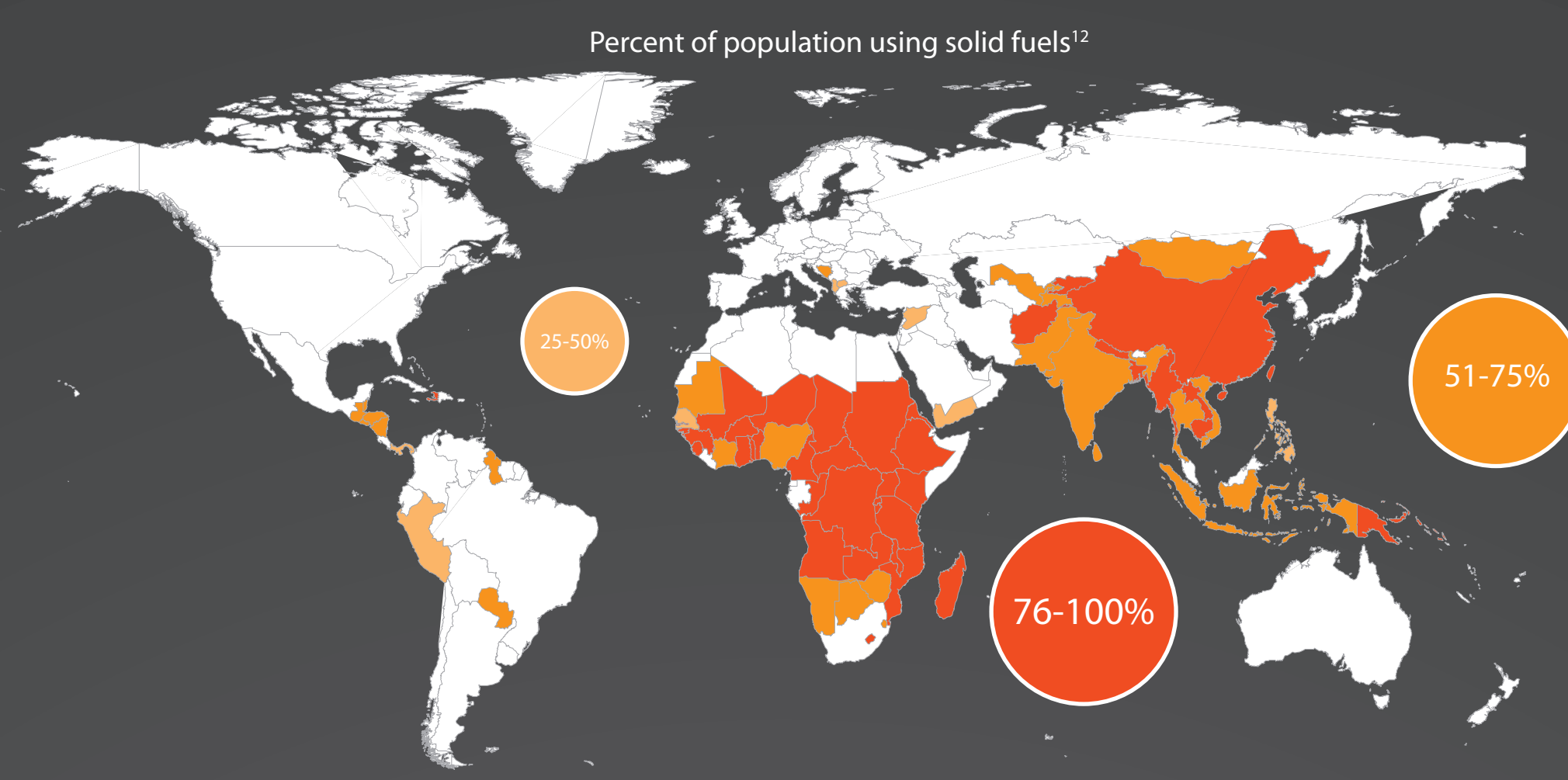
the impact of biomass-burning on health & environment and what we are **doing about it**



Worldwide, about **3 billion people** use biomass fuels including wood, charcoal, animal dung, or crop residues to cook their food and heat their homes¹. The health implications of this practice disproportionately affect women and children, resulting in **2 million premature deaths annually**².



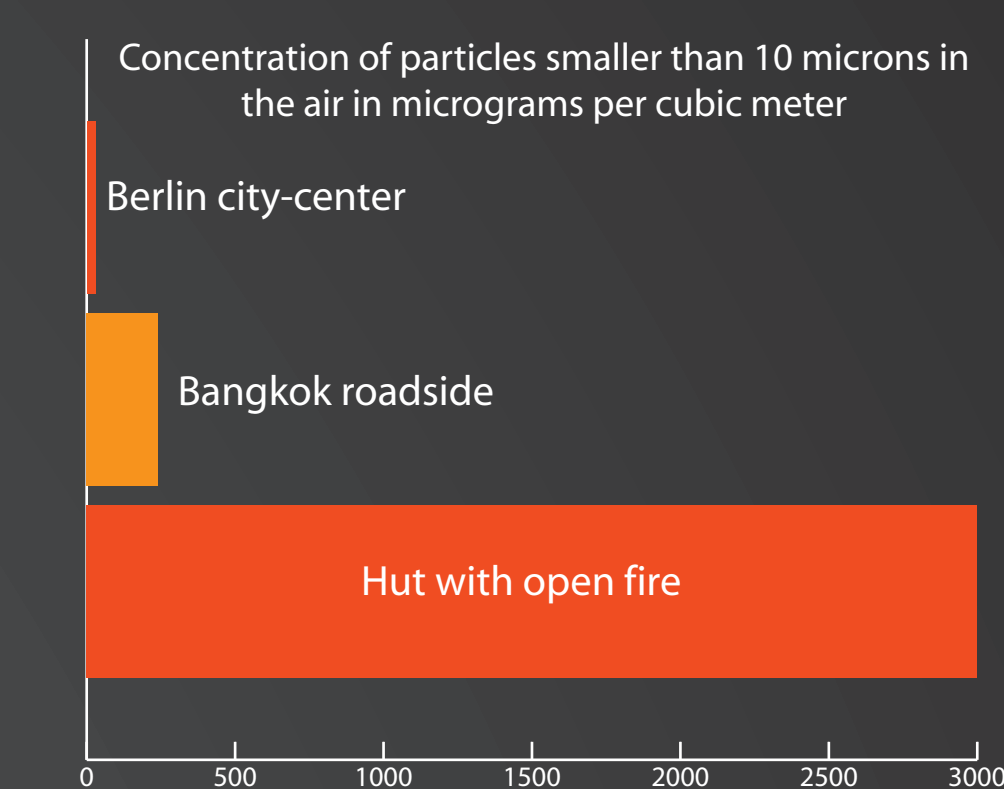
By 2030, biomass use for cooking is projected to increase by an additional 30%¹³



2,000,000

deaths annually attributed to smoke from cooking fires¹³.
This is equivalent to the entire HIV/AIDS epidemic

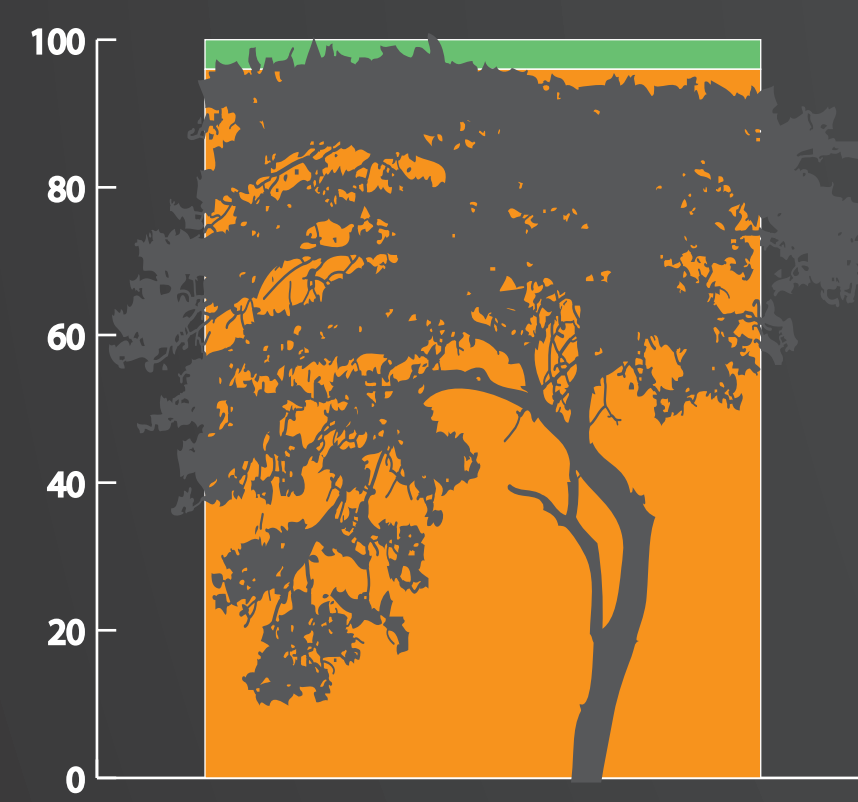
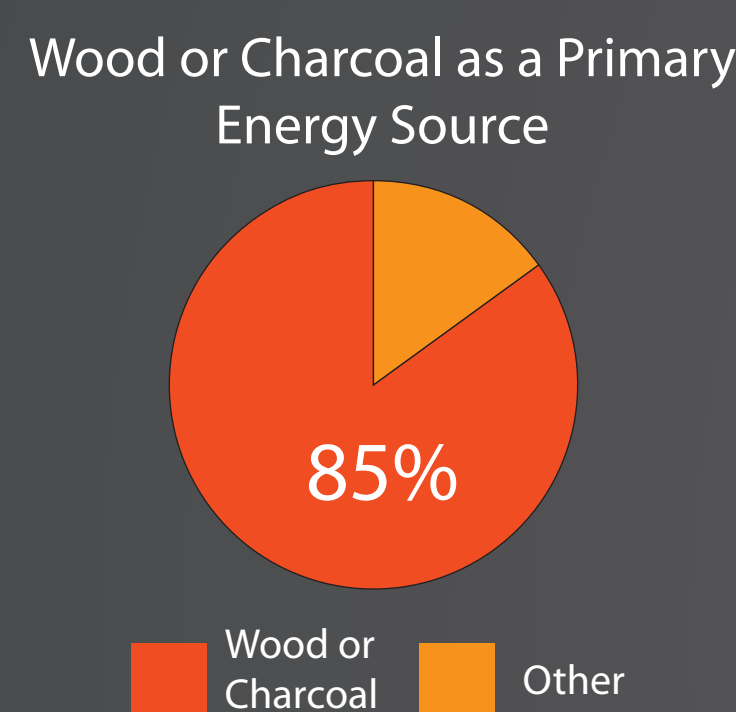
Black carbon soot like that produced from biomass burning is responsible for **18%** of the planet's warming¹¹



HAITI DARFUR ETHIOPIA

85% of Haitians use biomass energy as their primary fuel¹⁰

Since the 2010 earthquake, charcoal prices have increased to represent up to **40%** of a family's yearly income⁷

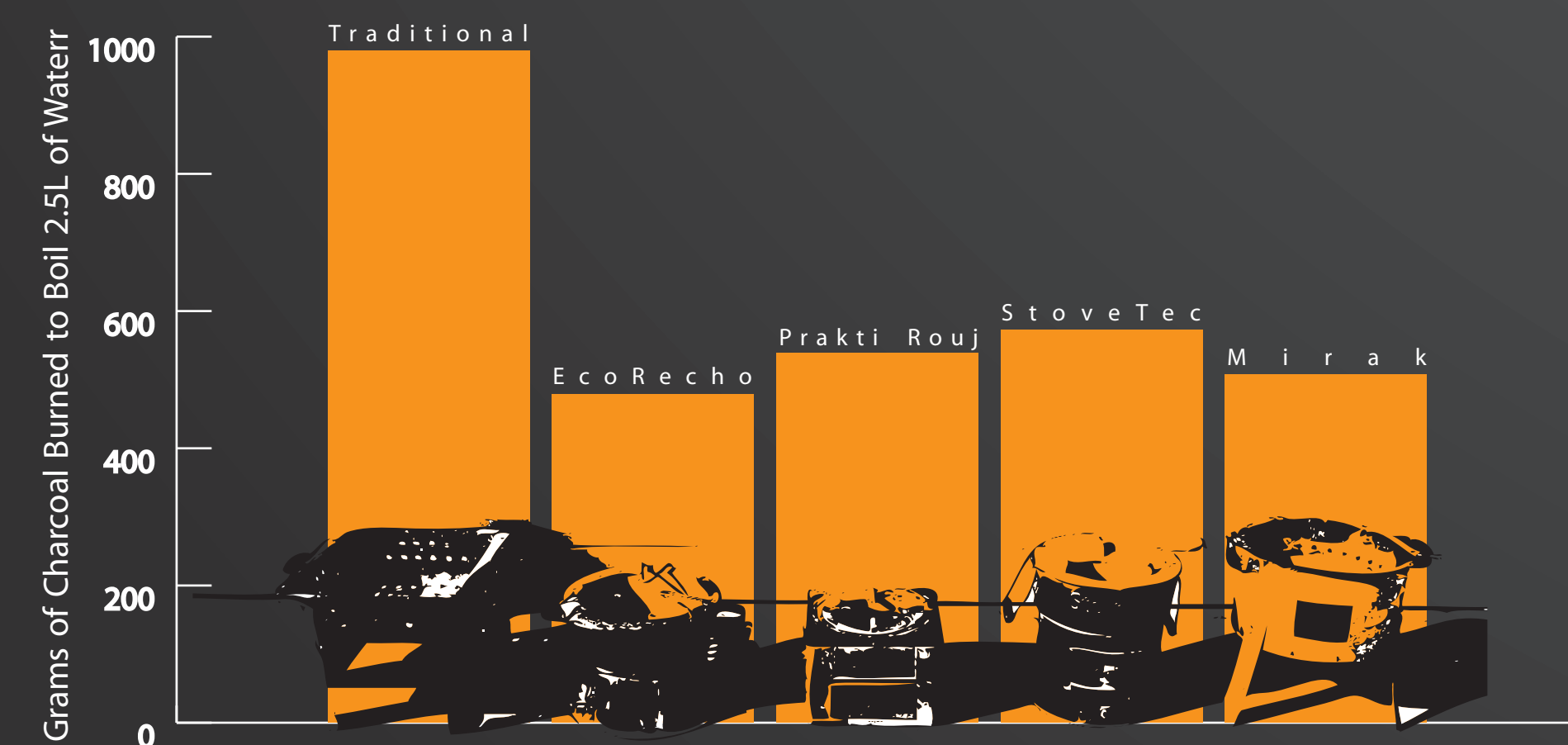


Deforestation contributes to soil erosion, increased vulnerability to flooding, and lower crop yields⁴. Haiti is over **96%** deforested⁸, with the situation worsening as charcoal producers cut down 8 million trees annually⁹

25% of deaths of children under five in Haiti are caused by smoke from indoor cooking fires⁵

BUT WE ARE WORKING TO MAKE THINGS BETTER

Since 2010, we have been working to provide Haitian NGOs with information about the performance of existing stoves.

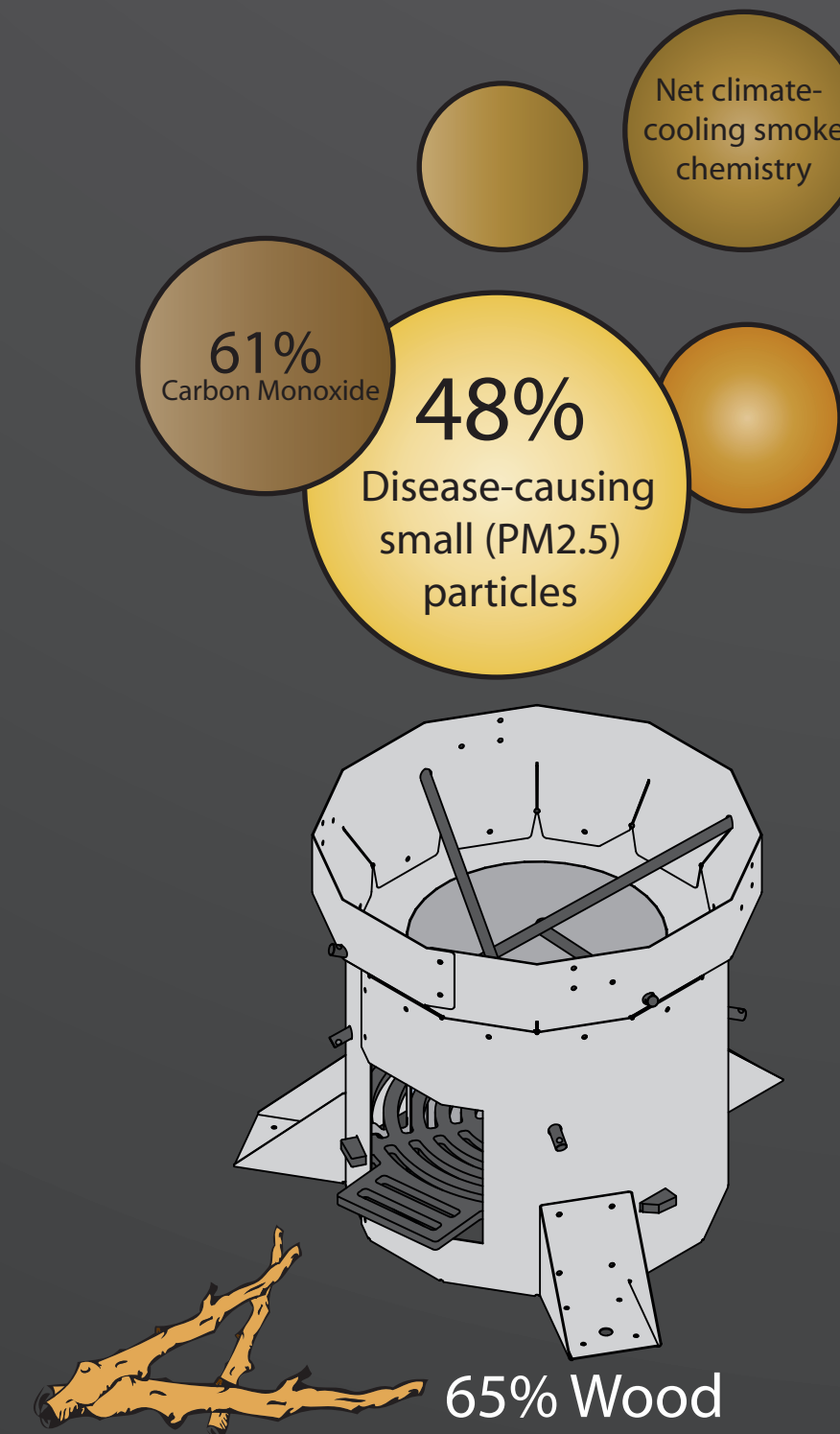


20,276 stoves in the field

120,000 displaced persons helped

\$30 MILLION worth of firewood cost saved

WHEN COMPARED TO A TRADITIONAL THREE-STONE FIRE²:

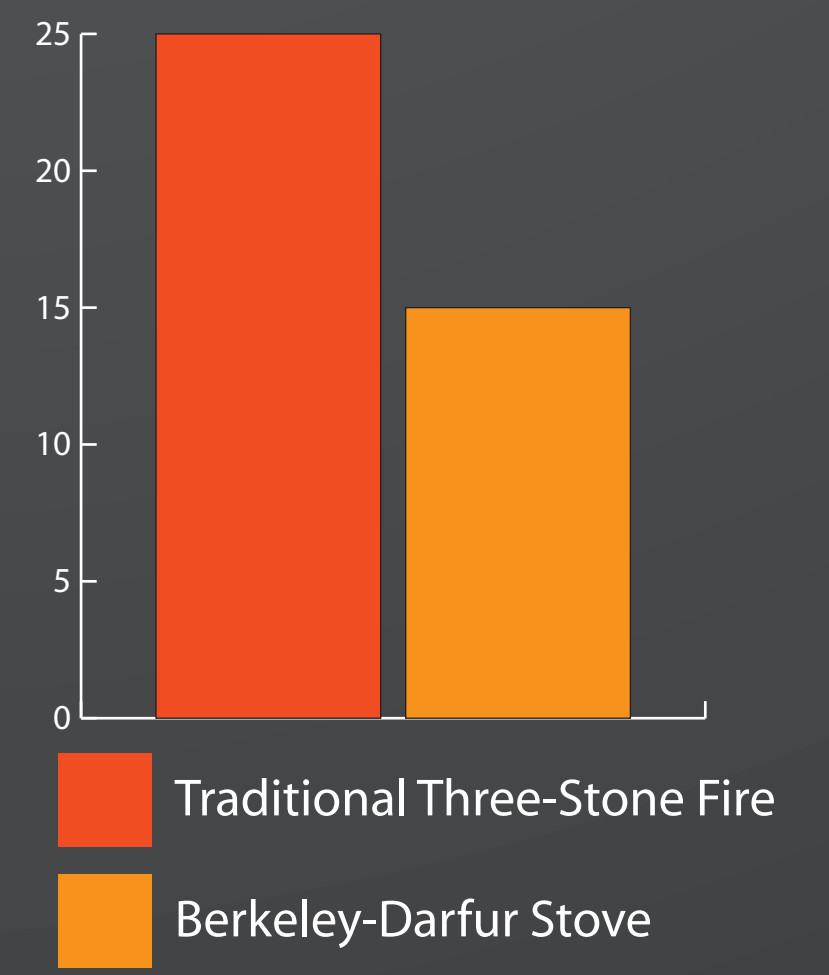


In the fall of 2005, hundreds of thousands of women living in Darfur's displacement camps walked up to 7 hours per day, 3 to 5 days per week, to collect firewood for cooking. During these treks, women were often subjected to sexual assault and abuse. The Berkeley-Darfur Stove, developed by the University of California, Berkeley and Lawrence Berkeley National Laboratory collaborating with Oxfam America and Plan Canada, was created to address this problem



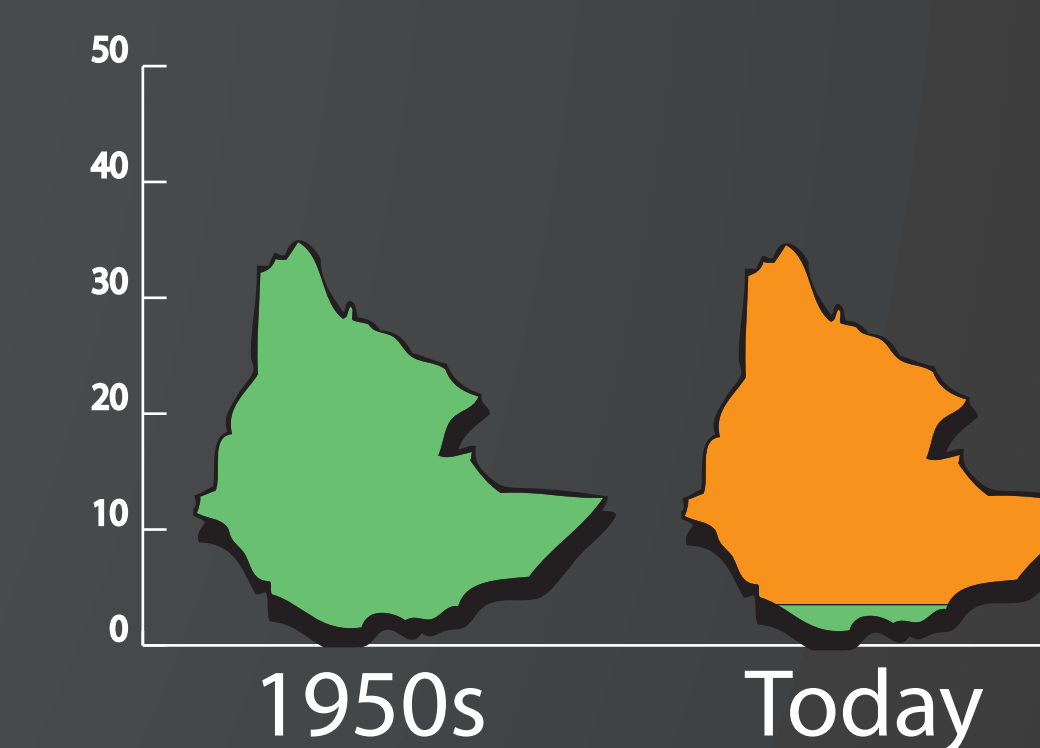
\$3000 annual fuel savings
\$1500 savings over life of stove

Minutes to Boil 2.5 Liters of Water



>80% More than 80% of Ethiopia's population currently depends on solid fuel for energy

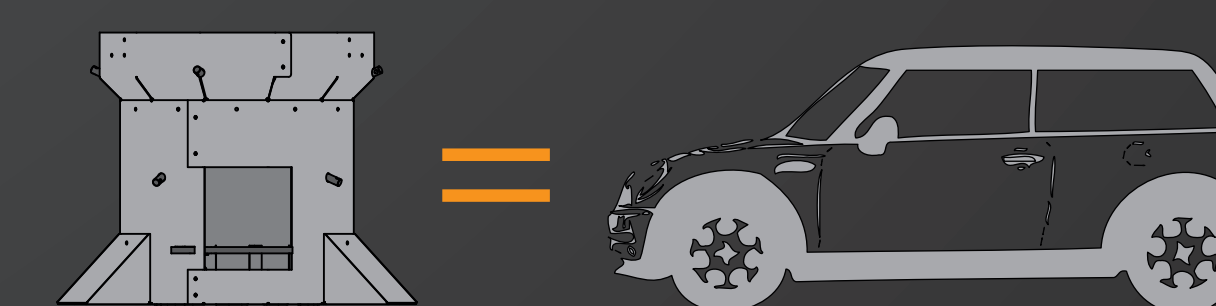
Ethiopia's forest cover has gone from 35% to 3% since the 1950s, partially as a result of the practice of burning solid fuels for cooking.



What are we doing to make a difference?

Our team has redesigned the Berkeley-Darfur stove to meet Ethiopia's specific cultural and food-preparation needs.

We are currently developing a unique stove-use monitoring system, and our team aims to deploy the first shipment of Berkeley-Ethiopia Stoves this year. With the help of our on-the-ground partner we will soon begin to collect user feedback and stove-use data.



Over its lifetime, one Berkeley-Ethiopia Stove will offset the carbon equivalent of taking a car in the USA off of the road for a full year



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 (11) Adapted from Figure 1.8 of WHO, 1997, op cit.
 (12) http://www.who.int/mec/centre/factsheets/fs292/en/.

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 POSTER PRINTED: 12 October 2011